

DJKIM.GENO.PT1.ST25  
SEQUENCE LISTING

<110> Genomine, Inc.  
Korea Research Institute of Chemical Technology

<120> Polypeptide Participating in Pyridoxine Biosynthesis, a  
Polynucleotide Coding the Polypeptide and Those Uses

<130> DJKIM.GENO.PT1

<140> PCT/KR05/000453  
<141> 2006-08-18

<150> PCT/KR2005/000453  
<151> 2005-02-18

<150> 10-2004-0011517  
<151> 2004-02-20

<160> 6

<170> PatentIn version 3.3

<210> 1  
<211> 1297  
<212> DNA  
<213> Arabidopsis thaliana

<400> 1  
tcactataaa gccgatccat agataaacga ggaccggcca gaaatcgctt caccattccc 60  
aaatctctct tccattttct ccacacaaat ttctcttcaa tctccgataa tggaagggaac 120  
cggcgttgtg gcggtgtacg gtaacggtgc gataacggag gcgaagaaat ctcccttctc 180  
cgtgaaggtc ggtttggctc agatgctccg tggtggtgtt atcatggatg tcgtcaacgc 240  
cgagcaagct cgtatcgccg aggaggctgg tgcttgccgc gtcattggctt tggagcgtgt 300  
tcctgctgat atccgcgctc aaggaggcgt cgctcgatg agcgatccac aaatgattaa 360  
agaaatcaaa caagccgtta cgattccggt gatggctaag gctaggattg gtcatttcgt 420  
tgaagctcag atccttgaag caattggaat cgattacatc gatgagagcg aggttttgac 480  
tcttgctgat gaagatcatc acatcaacaa gcataatttc cggatcccgt tcgtttgcg 540  
ttgccggaat ctccgagagg ctctgaggag gatccgtgaa ggtgcggcga tgattaggac 600  
caaagggtgaa gctggaaccg gtaacattat tgaagctgtg aggcattgtg ggtctgttaa 660  
tggtgacatt aggggttttg gaaacatgga tgatgatgag gttttcactt tcgctaagaa 720  
attagccgct ccgtacgatc tcgtgatgca gactaagcag cttggtcgctc ttctgtagt 780  
ccaattcgcc gccggtggag tggctactcc ggctgatgca gctctcatga tgcagcttgg 840  
atgtgatggt gtctttgttg gttctggtat cttcaagagc ggtgaccag ctcgtcgtgc 900  
acgtgccatt gttcaggctg tgactcatta cagtgacct gagatgcttg tggaggtag 960  
ctgtgggctt ggagaagcca tggttgggat caatctcaac gatgagaagg ttgagagggt 1020

DJKIM.GENO.PT1.ST25

cgctaatacgc tccgagtgat caaagaaata aaaggtaaaa tatctcagac gaaatggttt 1080  
 cagaattttc tcagaccatt ttgcagtaat ctctttgaaa agaagaagat gatgatattg 1140  
 ttggtagttt gtatcctttg tgttttcctt ataatctttg atagtctttt gttattgtaa 1200  
 ctcgtaatcc ctttgcaaga acaagtttgt cagttataat aatgtactac tctcttgatc 1260  
 gatcagttgg ttttgaatct gatataattct tcgatcc 1297

<210> 2  
 <211> 309  
 <212> PRT  
 <213> Arabidopsis thaliana  
 <400> 2

Met Glu Gly Thr Gly Val Val Ala Val Tyr Gly Asn Gly Ala Ile Thr  
 1 5 10 15  
 Glu Ala Lys Lys Ser Pro Phe Ser Val Lys Val Gly Leu Ala Gln Met  
 20 25 30  
 Leu Arg Gly Gly Val Ile Met Asp Val Val Asn Ala Glu Gln Ala Arg  
 35 40 45  
 Ile Ala Glu Glu Ala Gly Ala Cys Ala Val Met Ala Leu Glu Arg Val  
 50 55 60  
 Pro Ala Asp Ile Arg Ala Gln Gly Gly Val Ala Arg Met Ser Asp Pro  
 65 70 75 80  
 Gln Met Ile Lys Glu Ile Lys Gln Ala Val Thr Ile Pro Val Met Ala  
 85 90 95  
 Lys Ala Arg Ile Gly His Phe Val Glu Ala Gln Ile Leu Glu Ala Ile  
 100 105 110  
 Gly Ile Asp Tyr Ile Asp Glu Ser Glu Val Leu Thr Leu Ala Asp Glu  
 115 120 125  
 Asp His His Ile Asn Lys His Asn Phe Arg Ile Pro Phe Val Cys Gly  
 130 135 140  
 Cys Arg Asn Leu Gly Glu Ala Leu Arg Arg Ile Arg Glu Gly Ala Ala  
 145 150 155 160  
 Met Ile Arg Thr Lys Gly Glu Ala Gly Thr Gly Asn Ile Ile Glu Ala  
 165 170 175  
 Val Arg His Val Arg Ser Val Asn Gly Asp Ile Arg Val Leu Arg Asn

180

185

190

Met Asp Asp Asp Glu Val Phe Thr Phe Ala Lys Lys Leu Ala Ala Pro  
195 200 205

Tyr Asp Leu Val Met Gln Thr Lys Gln Leu Gly Arg Leu Pro Val Val  
210 215 220

Gln Phe Ala Ala Gly Gly Val Ala Thr Pro Ala Asp Ala Ala Leu Met  
225 230 235 240

Met Gln Leu Gly Cys Asp Gly Val Phe Val Gly Ser Gly Ile Phe Lys  
245 250 255

Ser Gly Asp Pro Ala Arg Arg Ala Arg Ala Ile Val Gln Ala Val Thr  
260 265 270

His Tyr Ser Asp Pro Glu Met Leu Val Glu Val Ser Cys Gly Leu Gly  
275 280 285

Glu Ala Met Val Gly Ile Asn Leu Asn Asp Glu Lys Val Glu Arg Phe  
290 295 300

Ala Asn Arg Ser Glu  
305

<210> 3  
<211> 30  
<212> DNA  
<213> Sense primer

<400> 3  
gaagatctat ggaaggaacc ggcgttggtg 30

<210> 4  
<211> 32  
<212> DNA  
<213> Antisense primer

<400> 4  
cgaagctttt ataactgaca aacttggttct tg 32

<210> 5  
<211> 29  
<212> DNA  
<213> Sense primer

<400> 5  
gaagatctca ctcggagcga ttagcgaac 29

<210> 6

DJKIM.GENO.PT1.ST25

<211> 30

<212> DNA

<213> Antisense primer

<400> 6

gctctagatg gaaggaaccg gcgttggtggc

30